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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,829	07/14/2003	Daniel De Lichana	152882	5221

38598 7590 09/25/2009

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EXAMINER	
SITTNER, MATTHEW T	
ART UNIT	PAPER NUMBER
3629	

MAIL DATE	DELIVERY MODE
09/25/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/617,829	LICHANA, DANIEL DE	
	Examiner	Art Unit	
	MATTHEW SITTNER	3629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 July 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11,13 and 16-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11,13 and 16-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 July 2009* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1. Claims 12, 14 and 15 have been canceled.

2. Claims 1-11, 13, 16-25, 40, 44 and 46 are amended by the papers filed on 07/28/2009.

3. Claims 47-48 are new.

4. Claims 1-11, 13, 16-48 are pending and have been examined.

5. This action is in reply to the papers filed on 07/28/2009.

Information Disclosure Statement

6. No Information Disclosure Statement has been filed.

Amendment

7. The present Office Action is based upon the original patent application filed on 07/14/2003 as modified by the amendment filed on 07/28/2009.

Drawings

8. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because numerous figures are of insufficient quality and legibility. Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

The examiner requests the applicant to provide new legible drawings. Specifically, Figs. 6A - 6E, 7A - 7H, 8A – 8C, 9A – 9B, 9D, 10A – 10B all contain pictures, charts, and graphs which are either not legible, to dark to read, or both.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 1-11, 13, 16-48 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Or in the alternative Claims 1-11, 13, 16-48 are rejected under:

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 1-11, 13, 16-48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 (currently amended): A computer-implemented system for optimizing use of resources in a physical space, comprising:

....

create a theoretical specification chart;

Applicant fails to enable the claimed theoretical specification chart. Based on the present claim and specification one of ordinary skill in the art would not be able to make, use, or practice the invention as presently claimed.

Applicant does disclose the claimed chart in his figures. However, the chart and/or the creation and use of the chart is subjective. Applicant has not provided the detailed disclosure which would allow one of ordinary skill in the art to objectively reproduce and use the claimed chart. For example, two people using similar data would not be able to produce objective, repeatable results based on the claimed chart.

compare the theoretical specification chart to a present land use using a model;

and

The comparing feature is not enabled so that one of ordinary skill in the art may make, use, or practice the invention as presently claimed.

....

Claim 16 (currently amended): The computer-implemented system of claim 1, wherein the model highlights incompatible propositions with numeric imaging.

Applicant claims highlighting incompatible propositions with numeric imaging. However, Applicant fails to enable these features so that one of ordinary skill in the art may make, use, or practice the invention as claimed.

For example, Applicant fails to enable how 'incompatible propositions' are made or determined. The broadest reasonable interpretation of the claim is that a person or human being makes these determinations.

Further, Applicant fails to enable the numeric imaging feature.

Claim 17 (currently amended): The computer-implemented system of claim 1, further comprising a simulator wherein a simulation is created based on the model.

Applicant claims creating a simulation based on a model. However, Applicant fails to enable one of ordinary skill in the art to make, use, or practice the invention as presently claimed. For example, Applicant fails to enable the claimed model or how a simulation is created based upon the claimed model.

Claim 18 (currently amended): The computer-implemented system of claim 1, wherein the processor is further configured to create and use an operational specification chart.

Applicant claims the creation and use of an operational specification chart. However, Applicant fails to enable the claimed "create and use an operational specification

chart" so that one of ordinary skill in the art may make, use, or practice the invention as claimed.

Claim 19 (currently amended): The computer-implemented system of claim 1, wherein the processor is further configured to create and use a graphical representation.

Applicant claims the configuration and use of a graphical representation. However, Applicant fails to enable that which he claims so that one of ordinary skill in the art may make, use, or practice the invention as claimed.

For example, Applicant's claim is indefinite as to "graphical representation." Applicant must state what he wishes to graphically represent. Applicant has not disclosed or enabled how to use the claimed graphical representation.

Claim 20 (currently amended): The computer-implemented system of claim 1, wherein the processor is further configured to create and use a 3D presentation.

Applicant claims a processor configured to create and use a 3D presentation. However, Applicant fails to enable that which he claims so that one of ordinary skill in the art may make, use, or practice the invention as claimed.

For example, Applicant's claim is indefinite as to "3D presentation." Applicant must state how he intends to create and use the claimed 3D presentation.

Claim 25 (currently amended): A method for optimizing land and resource use, said method comprising the steps of:

....

developing a plan for optimal use of said land and resources, wherein said step of developing comprises determining a numerical representation or value of services, formulating a theoretical specification, and modeling said services and use of said land and resources; and

Applicant fails to enable the feature of "formulating a theoretical specification" so that one of ordinary skill may make, use, or practice the invention.

....

Claim 27 (original): The method of claim 25, wherein the step of gathering data comprises the step of populating a chart with the gathered data.

Applicant claim is vague and indefinite as Applicant fails to claim which data is gathered and how it is populated into a chart. Further, applicant fails to disclose what kind of a chart the data is populated to.

Claim 30 (original): The method of claim 29, wherein the step of quantitatively assessing said data further comprises the step of performing calculations on said data to generate resultant data.

Performing calculations is vague and indefinite. Applicant should explicitly disclose what calculations are claimed to be performed.

Claim 46 (currently amended): The computer-readable medium of claim 44, further comprising instructions to display the optimal land-use plan using a computer.

Applicant has amended Claim 46 to include "land-use plan using a computer." However, Applicant failed to note the claim as "currently amended". Applicant should acknowledge that Claim 46 is amended over the original.

Claim 47 (new): The computer-readable medium of claim 44, further comprising computer software instruction to use an equation A+B-C < or = A for economic evaluation, wherein

A represents: the cost of existing services,

B represents: the increased cost due to improving the service or services, and

C represents: person or entities concerned with one or more of:

C1 - economy of scale realized when the serve is implemented,

C2 - economy due to 'intelligence' in maintenance and operation of the service,

C3 - qualitative increase in level and number of services,

C4 - economic fall out of these improvement, and

C5 - assurance for the operator to have a rapid return on the investment.

Applicant fails to enable the claimed feature of "intelligence in maintenance" so that one of ordinary skill in the art may make, use, or practice the invention.

Claim 48 (new): The computer-readable medium of claim 44, further comprising computer software instruction to use an equation A+B-C>A for economic evaluation, wherein

A represents: the cost of existing services,

B represents: the increased cost due to improving the service or services, and

C represents: person or entities concerned with one or more of:

C1 - economy of scale realized when the serve is implemented,

C2 - economy due to 'intelligence' in maintenance and operation of the service,

C3 - qualitative increase in level and number of services,

C4 - economic fall out of these improvement, and

C5 - assurance for the operator to have a rapid return on the investment.

Applicant fails to enable the claimed feature of "intelligence in maintenance" so that one of ordinary skill in the art may make, use, or practice the invention.

Claim Rejections - 35 USC § 101

13. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

14. Claims 1-11, 13, 16-24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 1 (currently amended): A computer-implemented system for optimizing use of resources in a physical space, comprising:

....

create a theoretical specification chart; compare the theoretical specification chart to a present land use using a model; and

The broadest reasonable interpretation of the above claimed feature is that a human being is either creating the theoretical specification chart or comparing the chart to a present land use model.

....

In system and apparatus claims, Applicant may not claim a human being. See MPEP at 2105 which states: "If the broadest reasonable interpretation of the claimed invention as a whole encompasses a human being, then a rejection under 35 U.S.C. 101 must be made indicating that the claimed invention is directed to nonstatutory subject matter."

Claim 13 (currently amended): The computer-implemented system of claim 1, further comprising instructions to manage the links.

Claims 13 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Applicant claims:

Claim 13 (currently amended): The computer-implemented system of claim 1, further comprising instructions to manage the links.

However, software is merely a set of instructions (non-functional descriptive material) capable of being implemented by a computer. However, by itself without being encoded onto a statutory computer-readable medium is not realizable. See MPEP 2106.01 (I).

Claim 16 (currently amended): The computer-implemented system of claim 1, wherein the model highlights incompatible propositions with numeric imaging.

The broadest reasonable interpretation of "model highlights incompatible propositions with numeric imaging" is that a human being is performing the highlighting or determining the incompatible propositions.

Applicant may not claim a human being. See MPEP at 2105 which states: "If the broadest reasonable interpretation of the claimed invention as a whole encompasses a human being, then a rejection under 35 U.S.C. 101 must be made indicating that the claimed invention is directed to nonstatutory subject matter."

15. Claims 25-48 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Applicant claims:

Claim 25 (currently amended): A method for optimizing land and resource use, said method comprising the steps of:...

However, as claimed any step could be performed mentally in an abstract sense. Thus, applicant's invention is a judicial exception of an abstract idea. In order for a claimed invention to a judicial exception to be patent eligible, it must satisfy the *In re Bilski* "machine-or-transformation test".

In re Bilski states that:

> A method claim must meet a specialized, limited meaning to qualify as a patent-eligible process claim. The test for a method claim is whether the claimed method is
> (1) tied to a particular machine or apparatus, or
> (2) transforms a particular article to a different state or thing.
> This is called the "machine-or-transformation test".
> There are two corollaries to the machine-or-transformation test.
> First, a mere field-of-use limitation is generally insufficient to render an otherwise ineligible method claim patent-eligible. This means the machine or transformation must impose meaningful limits on the method claim's scope to pass the test.
> Second, insignificant extra-solution activity will not transform an unpatentable principle into a patentable process. This means reciting a specific machine or a particular transformation of a specific article in an insignificant step, such as data gathering or outputting, is not sufficient to pass the test.

Regarding Claims 25,

Claim 25 (currently amended): A method for optimizing land and resource use, said method comprising the steps of:

Preamble is given little to no patentable weight.

A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

gathering data and storing the data in a database, said data representative of human factors, economic factors and environmental factors;

Gathering data in construed as the insignificant extra-solution activity of data gathering or outputting.

qualitatively assessing said data;

Qualitatively assessing data is an abstract mental step which may be achieved by a human being with or without the aid of a computer/machine/apparatus. Further, there is no transformation.

quantitatively assessing said data;

Quantitatively assessing data is an abstract mental step which may be achieved by a human being with or without the aid of a computer/machine/apparatus. Further, there is no transformation.

developing a plan for optimal use of said land and resources, wherein said step of developing comprises determining a numerical representation or value of services, formulating a theoretical specification, and modeling said services and use of said land and resources; and

Developing a plan is an abstract mental step which may be achieved by a human being with or without the aid of a computer/machine/apparatus. Further, there is no transformation.

repeating said steps of gathering data, qualitatively assessing said data, quantitatively assessing said data, and developing a plan, wherein said step of repeating aids in creating an optimal land-use plan and wherein said method is implemented by a computer.

Applicant's cursory tie to a computer is construed as a mere field-of-use limitation. The computer imposes no meaningful limits on the method claim's scope.

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in **Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966)**, that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows: ***(See MPEP Ch. 2141)***

a. Determining the scope and contents of the prior art;
b. Ascertaining the differences between the prior art and the claims in issue;
c. Resolving the level of ordinary skill in the pertinent art; and
d. Evaluating evidence of secondary considerations for indicating obviousness or nonobviousness.

17. Claims 1-11, 13, 16-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over: Orr et al. US PGPub. 2003/0061012 (**Orr**).

Claim 1 (currently amended): A computer-implemented system for optimizing use of resources in a physical space, comprising:

Preamble is given little to no patentable weight.

Orr et al. US PGPub. 2003/0061012 (Orr).

Orr discloses a method and system for performing four-dimensional, multiple consequence assessments of change in selected spaces. See Orr at Abstract and at Summary of the Invention.

ABSTRACT:

The present invention relates to a method of providing or updating a digital comprehensive plan for past, present and/or future community development or planning that is self-contained and capable of direct

updating by inputting data into an interface control module, processing the data using the interface control module, developing digital models of at least one scenario based upon the processed data, and producing representative models of digital models.

a computer readable medium: and a processor configured to:

Orr discloses a computer system which includes a computer readable medium and processor. Orr at [0009 – computer-resident model, 0044 – computer hardware, processors, 0051 – computer hardware, 0056 – computer resident interactive interfaces, 0080 – computer].

Claim 1 is a system claim. System and apparatus claims define structure. Thus, everything following "a computer readable medium: and a processor configured to:…" is construed as 'intended use limitations' and 'non-functional data'. Intended use limitations, in system/apparatus claims, are given little to no patentable weight.

Thus, any reference disclosing a computer with a database, server, processor, and display would anticipate these claims.

represent a physical space and two or more entities that have a relationship with the physical space;

Orr discloses a computer model which aids users in planning the use of physical space. Orr at [0009, 0016, 0027-0029, 0044].

Orr may or may not expressly disclose the following:

create links that define a relationship between the two or more entities or between an entity and the physical space, wherein the links are stored in a database in the computer readable medium;

However, Orr does disclose defining relationships. Orr at [0009]. He discloses links between future planning and decision making [0015]. See also Orr at [0016, 0060, 0094 – determine and respond to the spatial relationships among various attributes].

Further, it would be obvious to one of ordinary skill in the art to define links or relationships between entities and/or between entities and physical space and to store that data in a database. For example, a link may be the distance between two locations or two structures. Or a link may define the legal relationship between property (Greenacre has an access easement to use road over Blackacre).

As claimed, links are abstract descriptions which define relationships. Thus, the scope of the presently claimed links is INFINITE as the examiner can conceive of limitless links which define the relationship between entities.

Examiner construes links to merely represent or define a relationship. Links are not anything physical or concrete. See Applicant's remarks at page 13.

> With regard to link, applicant is not claiming a structural concrete connection. In this context, the "links" and "the feedback loop" are not simply a line on a drawing. Links represent or define a relationship, for example between or among a physical space and entities. Links may be stored in a database.

create a theoretical specification chart; compare the theoretical specification chart to a present land use using a model; and provide a feedback loop function that allows user input or consumer feedback to be used in order to optimize one of consumer satisfaction

and quality of life, in services offered or proposed to be offered to consumers located in the physical space.

Orr discloses a model which incorporates user input, interactions, preferences and user-preferred outcomes. Orr at [0011, 0017, 0018].

> [0011] Another object of this invention is to provide a learning method from which repeated user interactions allow a model to teach itself regarding user-preferred outcomes.
>
> [0017] Another object of this invention is to provide preferences of users within the method of the present invention through a learning process that can track user choices and can record these choices in an optimization plan model.
>
> [0018] Another object of this invention is to provide the user with an optimization function which provides an optional step that allows the system running the method to generate a decision based on a user's preferences to produce an automatically generated outcome.

Orr further provides a feedback mechanism which communicates information between the model and the user. Orr at [0075, 0077, 0079, 0154, 0160].

Orr's model specifically addresses such issues as quality of life [0070, 0081, 0116, 0124 – Life Quality Assessor, 0126, 0155] and various services [0114, 0118].

Claim 2 (currently amended): The computer-implemented system of claim 1, wherein the database is a relational database or a database for hyperlinks.

Orr discloses the claimed database(s) at [0158, claim 24].

Orr also discloses a sophisticated computer model which comprises software [0044, 0135, 0140] and databases [0066, 0158].

Orr may not expressly disclose the following:

Claim 3 (currently amended): The computer-implemented system of claim 1, wherein the links define a bi-directional relationship.

However, Orr does disclose relationships at [0009, 0016 – relationships between space and time, 0019, 0027-0029]. These relationships are construed as the claimed bi-directional relationships.

Claim 3 is a system claim. System claims define structure. The claim in its present form defines no structure. Per applicant's Remarks at page 13, "links represent of define a relationship… links may be stored in a database…" Thus, links is construed as non-functional data.

As discussed above, Orr discloses a database at [0158, claim 24] which is capable of storing the claimed non-functional data (i.e. links is non-functional data).

Claim 4 (currently amended): The computer-implemented system of claim 1, wherein the entities comprise one or more of private entities, public entities, physical infrastructure, organization infrastructure, surrounding environs of private, and publicly owned structures.

Orr discloses infrastructure [0061, 0065 – transportation infrastructure, 0087 – buried infrastructure, 0114 – governmental or public service infrastructure] and infrastructure changes at [0047]. He further discloses public/private decision making [0141].

Claim 4 is a system claim. System claims define structure. The claim in its present form defines no structure. An entity is construed as non-functional data.

As discussed above, Orr discloses a database at [0158, claim 24] which is capable of storing the claimed non-functional data (i.e. entities is non-functional data).

Claim 5 (currently amended): The computer-implemented system of claim 4, wherein the physical and organization infrastructure of the entities comprise one or more of:

buildings, equipment and other physical items as well as organizational structure, software, data, information, intellectual assets, and other intangibles.

Orr discloses infrastructure at [0065, 0087 – buried infrastructure, 0087 - building height] and data at [0157 – building codes].

Further, it would be obvious to one of ordinary skill in the art to store information pertinent to land-use planning (i.e. the other claimed items) in a database.

> [0065] The VComP Module 300 can use built environment data such as street, utilities and other infrastructure information with housing type, value and placement on given parcels and other Geographical Information Systems (GIS) information to evaluate past, present and/or future impacts of alternative development scenarios sorted by economic, social and environmental categories. For instance, higher density housing mixed with employment centers may require less transportation infrastructure and a reduction in air pollution, but may allow for an increase in the area's demand for utility services as these may be per-capita based.

Orr further discloses storing various relevant data at [0012-0013]. He discloses software at [0044] and information at [0045, 0058, 0061 – one, two, and three-dimensional information].

Claim 5 is a system claim. System claims define structure. The claim in its present form defines no structure. As discussed above, Orr discloses a database at [0158, claim 24] which is capable of storing the claimed non-functional data.

Claim 6 (currently amended): The computer-implemented system of claim 1, wherein the entities' relationship with the physical space comprises one, or more of:

geographical, political, environmental, and business relationship.

Orr discloses relationships between physical, environment [0047, 0066], and geographical [0082] entities.

> [0047] The method 125 and the system 135 can be used to model any past, present and/or future interactions between any human-caused environmental impacts (such as population changes, infrastructure changes, traffic patterns, resource consumption and flows, agricultural patterns, water uses, etc.) and any natural environmental impacts (such as groundwater resources, forest type/productivity, weather changes, extreme weather events, climate changes, fire regimes, wetland presence and health, habitat type and health, geology, etc.). The method 125 and the system 135 may also be used to express a plurality of concerns as instructions to the system to portray, evaluate, assess or otherwise analyze the impact of a range of human activities on the natural environment for a variety of time domains.

Claim 6 is a system claim. System claims define structure. The claim in its present form defines no structure. As discussed above, Orr discloses a database at [0158, claim 24] which is capable of storing the claimed non-functional data.

Claim 7 (currently amended): The computer-implemented system of claim 1, wherein the physical space is one of:

land, sea, outer space, underwater, neighborhood, developed site, and undeveloped site.

Orr defines a physical space as terrestrial space [0082], undeveloped site ("preserved land") [0088].

Claim 7 is a system claim. System claims define structure. The claim in its present form defines no structure. As discussed above, Orr discloses a database at [0158, claim 24] which is capable of storing the claimed non-functional data.

Claim 8 (currently amended): The computer-implemented system of claim 1, wherein the services are categorized and the computer-implemented system further comprises a relational or other database to store services.

Orr discloses databases capable of storing service data. See [0070 – governmental service, 0114 – utility services, public service infrastructure, 0118 – commercial services, 0120].

Claim 8 is a system claim. System claims define structure. The claim in its present form defines no structure other than a database. As discussed above, Orr discloses a database at [0158, claim 24] which is capable of storing the claimed non-functional data.

Claim 9 (currently amended): The computer-implemented system of claim 1, wherein the services comprise:

development, environment, security, information and communications, education, health care, cultural life and sport, and transportation services.

Orr at [0047-0048] discloses modeling health and environmental services. See also, Orr for [0065- transportation, development, environment, information, 0070 – quality of life, 0088 – development], [0114 - alternative transportation].

> [0047] The method 125 and the system 135 can be used to model any past, present and/or future interactions between any human-caused environmental impacts (such as population changes, infrastructure changes, traffic patterns, resource consumption and flows, agricultural patterns, water uses, etc.) and any natural environmental impacts (such as groundwater resources, forest type/productivity, weather changes, extreme weather events, climate changes, fire regimes, wetland presence and health, habitat type and health, geology, etc.). The method 125 and the system 135 may also be used to express a plurality of concerns as instructions to the system to portray, evaluate, assess or otherwise analyze the impact of a range of human activities on the natural environment for a variety of time domains.
>
> [0065] The VComP Module 300 can use built environment data such as street, utilities and other infrastructure information with housing type, value and placement on given parcels and other Geographical Information Systems (GIS) information to evaluate past, present and/or future impacts of alternative development scenarios sorted by economic, social and environmental categories. For instance, higher density housing mixed with employment centers may require less transportation infrastructure and a reduction in air pollution, but may allow for an increase in the area's demand for utility services as these may be per-capita based.

Claim 9 is a system claim. System claims define structure. The claim in its present form defines no structure. As discussed above, Orr discloses a database at [0158, claim 24] which is capable of storing the claimed non-functional data.

Claim 10 (currently amended): The computer-implemented system of claim 1, wherein the services are characterized as human, economic, and environmental.

Orr at [0047, 0065-0066, 0114] discloses economic, social, and environment categories. See Orr at [0118] for commercial services.

[0065] The VComP Module 300 can use built environment data such as street, utilities and other infrastructure information with housing type, value and placement on given parcels and other Geographical Information Systems (GIS) information to evaluate past, present and/or future impacts of alternative development scenarios sorted by economic, social and environmental categories. For instance, higher density housing mixed with employment centers may require less transportation infrastructure and a reduction in air pollution, but may allow for an increase in the area's demand for utility services as these may be per-capita based.

[0066] The VComP Module 300 can also use natural environment data such as species type, distribution densities, ecosystem baseline and change information and other natural resource data in GIS database to evaluate past, present and/or future impacts on ecosystems of alternative human or natural activities and events sorted by economic, social and environmental categories. For instance, urban encroachment and changing weather regions may individually or collectively have a variety of impacts on the natural environment and natural resources.

[0114] Other impacts can include changes in the level or quality of government or utility provided services (due to changes in the population, the type of services required, or the land use patterns, and/or any other demands on governmental or public service infrastructure), changes in air quality (due to changes in the population, new technologies for pollution reduction, alternative transportation infrastructure, the industrial economy of the region and/or any other changes which may affect air quality) can also be included. These examples do not preclude the use of the IA 307 for the assessment of impacts resulting from a plurality of additional changes in attributes, relationships and external impacts in the built and/or natural environment, either past, present and/or future.

[0118] In addition to the IA 307, a Financial Assessor 308 of the VComP Module 300 can be used with or without other modules to extract information from any of the Calculator modules 301 through 303 via User 100 direction and obtained from the Output module 304. This data can be converted into cost data, for instance, miles of specified types of roads to be built, watermains to be constructed, commercial services, public safety, etc.

Claim 10 is a system claim. System claims define structure. The claim in its present form defines no structure. As discussed above, Orr discloses a database at [0158, claim 24] which is capable of storing the claimed non-functional data.

Claim 11 (currently amended): The computer-implemented system of claim 1, wherein the computer-implemented system is used on developed sites or on undeveloped sites.

Orr at [0088, 0089, 0092] discloses using his method and system in conjunction with both developed sites and undeveloped sites or preserved sites.

[0088] The SGC 301 can also be used to do a variety of applications, such as store, catalog, route and provide metadata for internal/external data storage and retrieval for specifically routing its output to the Output Module 304, or query the User 100 via the GUI 201 for a set of initial conditions, such as actual, proposed, hypothetical or otherwise derived information. The SGC 301 can also be used to set the boundaries of the land for development such as "land bank", or other space for analysis, set the boundaries of other land reserved for non-development such as "preserved land", or other space for exclusion from change analysis.

Claim 11 is a system claim. System claims define structure. The claim in its present form defines no structure. As discussed above, Orr discloses a database at [0158, claim 24] which is capable of storing the claimed non-functional data.

Claim 13 (currently amended): The computer-implemented system of claim 1, further comprising instructions to manage the links.

Orr discloses instructions at [0047, 0051, 0059, 0101, 0128-0129, 0141].

Claim 13 is a system claim. System claims define structure. The claim in its present form defines no structure. As discussed above, Orr discloses a database at [0158, claim 24] which is capable of storing the claimed non-functional data.

Further, instructions to manage links are merely software or data.

Orr may or may not expressly disclose the following:

Claim 16 (currently amended): The computer-implemented system of claim 1, wherein the model highlights incompatible propositions with numeric imaging.

However, it would be obvious to one of ordinary skill in the art to highlight problems or alert a user to incompatible propositions as claimed. Computer models are designed to simulate scenarios and highlight in some fashion both positive and negative results.

Claim 16 is a system claim. System claims define structure. The claim in its present form defines no structure. As discussed above, Orr discloses a database at [0158, claim 24] which is capable of storing the claimed non-functional data.

Claim 17 (currently amended): The computer-implemented system of claim 1, further comprising a simulator wherein a simulation is created based on the model.

Orr discloses animated simulations at [0072, 0100, 0102, 0110, 0124].

Claim 17 is a system claim. System claims define structure. The claim in its present form defines no structure. A simulator is structural. Rather, a simulator is a compilation of software or data. As discussed above, Orr discloses a database at [0158, claim 24] which is capable of storing the claimed non-functional data.

Orr may or may not expressly disclose the following:

Claim 18 (currently amended): The computer-implemented system of claim 1, wherein the processor is further configured to create and use an operational specification chart.

However, it would be obvious to one of ordinary skill in the art to create the claimed chart.

Claim 18 is a system claim. System claims define structure. The claim in its present form defines no structure other than a processor. As discussed above, Orr discloses a processor and a computer at [0009 – computer, 0023 – computer, 0044 – computer hardware and processors, 0051 – computer hardware, 0056 – computer, 0064 – computer, 0080 – computer, 0085 – computer].

Everything after "processor…" is construed as non-functional descriptive material/data. In system claims, non-functional descriptive material/data is given little to no patentable weight. Nevertheless, Orr discloses a database at [0158, claim 24] which is capable of storing the claimed non-functional data.

Claim 19 (currently amended): The computer-implemented system of claim 1, wherein the processor is further configured to create and use a graphical representation.

Orr discloses a Graphical User Interface at [0014, 0035, 0051, 0057, 0058, 0134].

Claim 19 is a system claim. System claims define structure. The claim in its present form defines no structure other than a processor. As discussed above, Orr discloses a

processor and a computer at [0009 – computer, 0023 – computer, 0044 – computer hardware and processors, 0051 – computer hardware, 0056 – computer, 0064 – computer, 0080 – computer, 0085 – computer].

Everything after "processor…" is construed as non-functional descriptive material/data. In system claims, non-functional descriptive material/data is given little to no patentable weight. Nevertheless, Orr discloses a database at [0158, claim 24] which is capable of storing the claimed non-functional data.

Claim 19, has similar limitations as of Claim 18, therefore it is rejected under the same rationale as Claim 18.

Claim 20 (currently amended): The computer-implemented system of claim 1, wherein the processor is further configured to create and use a 3D presentation.

Orr at [0054, 0060, 0061, 0069, 0072, 0080, 0082, 0087, 0135] discloses presenting information in a three-dimensional presentation.

> [0054] This embodiment of the invention can also be used to develop particular scenarios for later use by an authoritative body. This can occur by allowing Users 100 to interface with the DComP Module 400 via the ICM 200 thereby controlling the outcome which in turn will be sent to the Final Output Module 500. Such control can be exercised to produce specific VComP digital model representations as a series of DComP representative models for User 100 evaluation and decision-making support for the authoritative body. The output media and format of the DComP representative models in the Final Output Module 500 can be user-determined and can include three-dimensional virtual, immersive technologies, printed material, audio and/or other stimulative mechanisms.

Claim 20 is a system claim. System claims define structure. The claim in its present form defines no structure other than a processor. As discussed above, Orr discloses a

processor and a computer at [0009 – computer, 0023 – computer, 0044 – computer hardware and processors, 0051 – computer hardware, 0056 – computer, 0064 – computer, 0080 – computer, 0085 – computer].

Everything after "processor…" is construed as non-functional descriptive material/data. In system claims, non-functional descriptive material/data is given little to no patentable weight. Nevertheless, Orr discloses a database at [0158, claim 24] which is capable of storing the claimed non-functional data.

Claim 20, has similar limitations as of Claim 18, therefore it is rejected under the same rationale as Claim 18.

Claim 21 (currently amended): The computer-implemented system of claim 1, wherein the processor is further configured to create and use a virtual reality presentation.

Orr at [0054, 0136] discloses presenting information in a virtual presentation.

[0136] The displays of the VM 501 may be of any timeframe as appropriate to illustrate a scenario or outcome or any number of immersive, virtual reality, holographic, or other communication media which effectively convey complex information to a lay or expert audience. These displays can basically be used to aid in visualizing any range of attributes, relationships, external factors and time periods defining a space responding to a plurality of decisions which the User 100 may be considering.

Claim 21, has similar limitations as of Claim 18, therefore it is rejected under the same rationale as Claim 18.

Claim 22 (currently amended): The computer-implemented system of claim 1, wherein the processor is further configured to generate a three dimensional grid for assessment of the services, and wherein the three axes of the three dimensional grid represent x = human, y = economic, z = environmental.

Orr at [0082] discloses displaying information in three dimensions using an x, y, and z axis. Further, it would be obvious to one of ordinary skill in the art to display information on such a three dimensional axis using a plurality of information such as claimed human factors, economic factors and environmental factors.

Orr at [0066] further discloses the value of evaluating human, economic and environmental factors and data and how they impact each other. It would be obvious to one of ordinary skill in the art to present this information in three dimensions on the x, y, z axis disclosed by Orr at [0082].

> [0066] The VComP Module 300 can also use natural environment data such as species type, distribution densities, ecosystem baseline and change information and other natural resource data in GIS database to evaluate past, present and/or future impacts on ecosystems of alternative human or natural activities and events sorted by economic, social and environmental categories. For instance, urban encroachment and changing weather regions may individually or collectively have a variety of impacts on the natural environment and natural resources.

Orr at [0102] also discloses simulating scenarios involving economic, human and environmental occurrences and events.

Claim 22, has similar limitations as of Claim 18, therefore it is rejected under the same rationale as Claim 18.

Orr may or may not expressly disclose the following:

Claim 23 (currently amended): The computer-implemented system of claim 1, wherein an equation A+B-C< or = A is used for economic evaluation, wherein

A represents: the cost of existing services,

B represents: the increased cost due to improving the service or services, and

C represents: person or entities concerned with:

C1 - economy of scale realized when the serve is implemented,

C2 - economy due to 'intelligence' in maintenance and operation of the service,

C3 - qualitative increase in level and number of services,

C4 - economic fall out of these improvement, and

C5 - assurance for the operator to have a rapid return on the investment.

However, it would be obvious to one of ordinary skill to use various mathematical equations to make economic evaluations.

Although, Orr do not disclose the above claimed equation exactly Orr disclose various equations which is used by his respective model.

Claim 23 is a system claim. System claims define structure. The claim in its present form defines no structure. Everything after "The computer-implemented system of claim 1,…" is construed as non-function descriptive material/data. As discussed above, Orr discloses a database at [0158, claim 24] which is capable of storing the claimed non-functional data.

Claim 24 (currently amended): The computer-implemented system of claim 1, wherein an equation A+B-C>A is used for economic evaluation, wherein

A represents: the cost of existing services,

B represents: the increased cost due to improving the service or services, and

C represents: person or entities concerned with one or more of:

C1 - economy of scale realized when the serve is implemented,

C2 - economy due to 'intelligence' in maintenance and operation of the service,

C3 - qualitative increase in level and number of services,

C4 - economic fall out of these improvement, and

C5 - assurance for the operator to have a rapid return on the investment.

Claim 24 is a system claim. System claims define structure. The claim in its present form defines no structure. Everything after "The computer-implemented system of claim 1,..." is construed as non-function descriptive material/data. As discussed above, Orr discloses a database at [0158, claim 24] which is capable of storing the claimed non-functional data.

Claim 24, has similar limitations as of Claim 23, therefore it is rejected under the same rationale as Claim 23.

Claim 25 (currently amended): A method for optimizing land and resource use, said method comprising the steps of:

Preamble is given little to no patentable weight.

Orr et al. US PGPub. 2003/0061012 (Orr).

Orr discloses a method and system for performing four-dimensional, multiple consequence assessments of change in selected spaces. See Orr at Abstract and at Summary of the Invention.

ABSTRACT:

The present invention relates to a method of providing or updating a digital comprehensive plan for past, present and/or future community development or planning that is self-contained and capable of direct updating by inputting data into an interface control module, processing the data using the interface control module, developing digital models of at least one scenario based upon the processed data, and producing representative models of digital models.

gathering data and storing the data in a database, said data representative of human factors, economic factors and environmental factors;

Orr at [0047, 0065-0066, 0114] discloses economic, social, and environment categories. See Orr at [0118] for commercial services.

[0065] The VComP Module 300 can use built environment data such as street, utilities and other infrastructure information with housing type, value and placement on given parcels and other Geographical Information Systems (GIS) information to evaluate past, present and/or future impacts of alternative development scenarios sorted by economic, social and environmental categories. For instance, higher density housing mixed with employment centers may require less transportation infrastructure and a reduction in air pollution, but may allow for an increase in the area's demand for utility services as these may be per-capita based.

[0066] The VComP Module 300 can also use natural environment data such as species type, distribution densities, ecosystem baseline and change information and other natural resource data in GIS database to evaluate past, present and/or future impacts on ecosystems of alternative human or natural activities and events sorted by economic, social and environmental categories. For instance, urban encroachment and changing weather regions may individually or collectively have a variety of impacts on the natural environment and natural resources.

[0114] Other impacts can include changes in the level or quality of government or utility provided services (due to changes in the population, the type of services required, or the land use patterns, and/or any other demands on governmental or public service infrastructure), changes in air quality (due to changes in the population, new technologies for pollution reduction, alternative transportation infrastructure, the industrial economy of the region and/or any other changes which may affect air quality) can also be included. These examples do not preclude the use of the IA 307 for the assessment of impacts resulting from a plurality of additional changes in attributes, relationships and external impacts in the built and/or natural environment, either past, present and/or future.

[0118] In addition to the IA 307, a Financial Assessor 308 of the VComP Module 300 can be used with or without other modules to extract information from any of the Calculator modules 301 through 303 via User 100 direction and obtained from the Output module 304. This data can be converted into cost data, for instance, miles of specified types of roads to be built, watermains to be constructed, commercial services, public safety, etc.

qualitatively assessing said data;

Orr discloses analyzing [0047-0048, 0123] and assessing [0115, claims 7 and 9] data.

quantitatively assessing said data;

Orr discloses analyzing [0047-0048, 0123] and assessing [0115, claims 7 and 9] data.

developing a plan for optimal use of said land and resources, wherein said step of developing comprises determining a numerical representation or value of services, formulating a theoretical specification, and modeling said services and use of said land and resources; and

Orr discloses developing a comprehensive plan and model for the use of land. Orr at [Abstract, 0009-0030, 0044, 0047, 0050-0055].

repeating said steps of gathering data, qualitatively assessing said data, quantitatively assessing said data, and developing a plan, wherein said step of repeating aids in creating an optimal land-use plan and wherein said method is implemented by a computer.

Claim 25, has similar limitations as of Claim 1, therefore it is rejected under the same rationale as Claim 1.

Claim 26 (original): The method of claim 25, wherein the step of gathering comprises gathering customer feedback data.

Orr discloses enabling a user to merge and/or modify feedback information. Orr at [0075, 0077, 0079, 0154, 0160].

Claim 26, has similar limitations as of Claim 1, therefore it is rejected under the same rationale as Claim 1.

Orr may or may not disclose the following:

Claim 27 (original): The method of claim 25, wherein the step of gathering data comprises the step of populating a chart with the gathered data.

However it would be obvious to one of ordinary skill in the art to populate a chart with data.

Claim 28 (original): The method of claim 27, wherein the step of qualitatively assessing said data further comprises the step of assigning a value to the human factors, economic factors and environmental factors represented by said data.

Orr discloses assigning values to various factors. See Orr at [0019, 0065, 0079, 0082, 0095, 0116, 0119, 0147, 0154].

Further, it would be obvious to one of ordinary skill in the art to assign a value to the various factors which are to be modeled.

Orr may or may not expressly disclose the following:

Claim 29 (original): The method of claim 28, wherein the step of gathering data further comprises the step of populating a balance sheet with the gathered data.

However, it would be obvious to one of ordinary skill in the art to populate a balance sheet with gathered data.

Claim 30 (original): The method of claim 29, wherein the step of quantitatively assessing said data further comprises the step of performing calculations on said data to generate resultant data.

Orr discloses performing a plurality of calculations on data. Orr at [0092, 0094-0095, 0097-0099, 0101, 0105, 0108, 0123, 0149].

Orr may or may not expressly disclose the following:

Claim 31 (original): The method of claim 30, further comprising step of:

importing said data and said assigned value from said chart to an assessment grid;

importing said resultant data from said balance sheet to said assessment grid; and

displaying said assessment grid, wherein said assessment grid represents the status of said services.

However, Orr discloses both importing [0086] data and displaying [0064, 0132, 0135] information. Further, it would be obvious to one of ordinary skill in the art to both import, export and display data relevant to the model. Also, data is commonly exported to other applications (i.e. charts, balance sheets, grids, etc…).

Claim 32 (original): The method of claim 3 1, further comprising the step of:

modifying the numerical representation or value assigned to the services, thereby generating a modified value;

importing said data and said modified value from said chart to an evolution grid;

importing said resultant data from said balance sheet to said evolution grid; and

displaying said data and said modified value from said chart, and resultant data from said balance sheet, wherein said evolution grid represents the proposed status of said services.

Claim 32, has similar limitations as of Claim 31, therefore it is rejected under the same rationale as Claim 31.

Claim 33 (original): The method of claim 32, further comprising the step of visually displaying a virtual representation of the optimal land-use plan.

Claim 33, has similar limitations as of Claim 21, therefore it is rejected under the same rationale as Claim 21.

Claim 34 (original): The method of claim 33, wherein said assessment grid and said evolution grid have three axis, said three axis representative of said human factors, economic factors and environmental factors.

Claim 34, has similar limitations as of Claim 22, therefore it is rejected under the same rationale as Claim 22.

Claim 35 (original): The method of claim 33, wherein said human factors are chosen from one of:

smart growth & sustainable development, security, health care, education, environment, transportation, cultural life & sport, and information and communication.

Orr discloses human factors at [0047-0048, 0066, 0084, 0100, 0109, 0112] which may include at least the claimed health, environment, development and transportation.

> [0047] The method 125 and the system 135 can be used to model any past, present and/or future interactions between any human-caused environmental impacts (such as population changes, infrastructure

changes, traffic patterns, resource consumption and flows, agricultural patterns, water uses, etc.) and any natural environmental impacts (such as groundwater resources, forest type/productivity, weather changes, extreme weather events, climate changes, fire regimes, wetland presence and health, habitat type and health, geology, etc.). The method 125 and the system 135 may also be used to express a plurality of concerns as instructions to the system to portray, evaluate, assess or otherwise analyze the impact of a range of human activities on the natural environment for a variety of time domains.

[0048] Additionally, the method 125 and the system 135 can be used to portray, evaluate, assess or otherwise analyze the impacts for a range of naturally occurring events on the built or natural environment for a variety of time domains. It may include past, present and/or future interactions among attributes within the built, human-constructed or altered environment or within the natural environment, or any past, present and/or future external impacts on any space, place or community under consideration.

Claim 36 (original): The method of claim 33, wherein said economic factors are chosen from one of:

studies and projections cost, realization cost, cost of debt, management, maintenance and control cost, tax revenues, yield and appropriation, sales price of services, and legal and particulars.

Orr discloses a Financial Assessor at [0120] which is construed as claimed economic factors. See also Orr at [0121].

[0120] The Financial Assessor 308 may also be used to extract cost information from long-term events, courses of action or change defined by the Impact Calculator 303. This information may be obtained via the Output module 304 and summing the costs over time of certain services or infrastructure provided, certain resources used or provided, certain wastes generated, and/or other impacts which may be quantified economically. The cost data, either by category or summed, can be used to assist in current decision making which may produce certain spatial attributes and/or relationships. This economic information can assist in making potentially costly decisions.

Claim 37 (original): The method of claim 33, wherein said environmental factors are chosen from one of water, air, noise level, soil - underground - relief, green spaces, public lighting, waste and treatment, and pollution.

Orr at [0047-0049, 0065, 0091, 0103, 0104, 0114, 0116] discloses environmental factors.

Claim 38 (original): The method of claim 25, wherein said method is implemented during one of conceptualization of land use, implementation of land use, management and maintenance of land use, and control of land use.

Orr discloses a method and system which is intended to be used at all stages of development and planning (past, present and future). Orr at Abstract.

ABSTRACT:

The present invention relates to a method of providing or updating a digital comprehensive plan for past, present and/or future community development or planning that is self-contained and capable of direct updating by inputting data into an interface control module, processing the data using the interface control module, developing digital models of at least one scenario based upon the processed data, and producing representative models of digital models.

Claim 39 (original): The method of claim 38, wherein the step of developing is performed during one of conceptualization of land use, implementation of land use, management and maintenance of land use, and control of land use.

Orr discloses developing a plan for land use at all stages (past, present and future). Orr at abstract [0088, 0089, 0095, 0157].

Orr may or may not expressly disclose the following:

Claim 40 (currently amended): The method of claim 25, further comprising:

creating charter.

However, it would be obvious to one of ordinary skill to produce a printed document such as a charter. A charter is nothing more that a contract or abstract legal idea.

Claim 41 (original): The method of claim 25, wherein the proposed services are linked together in a network of links and the links are managed.

Claim 41, has similar limitations as of Claim 13, therefore it is rejected under the same rationale as Claim 13.

Claim 42 (original): The method of claim 25, wherein said proposed services are chosen form one of a bridge, a river, a street, streetlights, apartments, TV channels, agriculture, public health, a building, a city hall, the state, sports, a book, a field, offices, cattle, a forest, air and water quality, noise, a factory, a coast, and a hill.

Orr discloses the following claimed services:

Quality of life – [0006, 0070];

Water – [0006, 0047, 0070, 0087, 0091, 0095, 0103, 0104, 0109, 0113];

Forest – [0047];

Health – [0047];

Street – [0065];

Air – [0065, 0087, 0114];

Building – [0087, 0103];

See also, Orr at [0124] for Life Quality Assessor.

The remaining factors would be obvious to one of ordinary skill in the art.

Claim 43 (original): The method of claim 25, wherein said step of developing a plan for optimal use of said land and resources, further includes the step of performing an economic selection by use of the equation A+B-C < or = A, wherein

A represents: the cost of existing services,

B represents: the increased cost due to improving the service or services, and

C represents: persons or entities concerned with:

C1 - economy of scale realized when the serve is implemented,

C2 - economy due to 'intelligence' in maintenance and operation of the service,

C3 - qualitative increase in level and number of services,

C4 - economic fall out of these improvement, and

C5 - assurance for the operator to have a rapid return on the investment.

Claim 43, has similar limitations as of Claim 23, therefore it is rejected under the same rationale as Claim 23.

Claim 44 (currently amended): A computer-readable medium comprising computer software instructions to:

gather data and store the gathered data in a database, said data representative of human factors, economic factors and environmental factors;

qualitatively assess said data;

quantitatively assess said data;

develop a plan for optimal use of land and resources, wherein the instructions to develop a plan comprise instructions for determining a numerical representation or value of services, formulating a theoretical specification, and modeling said services and use of said land and resources; and

repeat instructions to gather data, qualitatively assess said data, quantitatively assess said data, and develop a plan, wherein said repeat instructions aids in creating an optimal land-use plan.

Claim 44, has similar limitations as of Claim 1, therefore it is rejected under the same rationale as Claim 1.

Claim 45 (original): The computer-readable medium of claim 44, wherein the instructions to gather data comprise gathering customer feedback data.

Claim 45, has similar limitations as of Claim 1, therefore it is rejected under the same rationale as Claim 1.

Claim 46 (currently amended): The computer-readable medium of claim 44, further comprising instructions to display the optimal land-use plan using a computer.

Orr at [0064, 0132, 0135, 0136] provides a means to display information including a land-use model.

Claim 47 (new): The computer-readable medium of claim 44, further comprising computer software instruction to use an equation A+B-C < or = A for economic evaluation, wherein

A represents: the cost of existing services,

B represents: the increased cost due to improving the service or services, and

C represents: person or entities concerned with one or more of:

C1 - economy of scale realized when the serve is implemented,

C2 - economy due to 'intelligence' in maintenance and operation of the service,

C3 - qualitative increase in level and number of services,

C4 - economic fall out of these improvement, and

C5 - assurance for the operator to have a rapid return on the investment.

Claim 47, has similar limitations as of Claim 23, therefore it is rejected under the same rationale as Claim 23.

Claim 48 (new): The computer-readable medium of claim 44, further comprising computer software instruction to use an equation A+B-C>A for economic evaluation, wherein

A represents: the cost of existing services,

B represents: the increased cost due to improving the service or services, and

C represents: person or entities concerned with one or more of:

C1 - economy of scale realized when the serve is implemented,

C2 - economy due to 'intelligence' in maintenance and operation of the service,

C3 - qualitative increase in level and number of services,

C4 - economic fall out of these improvement, and

C5 - assurance for the operator to have a rapid return on the investment.

Claim 48, has similar limitations as of Claim 24, therefore it is rejected under the same rationale as Claim 24.

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

THIS ACTION IS MADE FINAL

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW T. SITTNER whose telephone number is (571) 270-7137. The examiner can normally be reached on Monday-Friday, 8:00am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss can be reached on (571) 272-6812. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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